

Appl. No. 10/690,070
Amdt. dated September 9, 2005
Reply to Office action of June 14, 2005

REMARKS/ARGUMENTS

Claims 1 and 25 have been amended to show that the coating absorbs less than 1% of transmitted light between wavelengths of about 300 nanometers to about 3000 nanometers. Support for these claims is found on page 8, lines 11-12 of the instant application.

Claim 16 has been amended to depend from claim 14. Support for this claim is found on page 5, line 29 - page 7, line 2.

Claim 24 has been canceled and incorporated into claims 1 and 25.

Claim Rejections – 35 USC §112

Claim 16 stands as rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 16 recites the limitation “wherein the poly(acrylic acid) polyelectrolyte” in line 1. The Examiner asserts that there “is insufficient antecedent basis for this limitation in the claim.”

Claim 16 has been amended to depend from claim 14. Support for this claim is found on page 5, line 29 – page 7, line 2. Claim 14, recites the “polyanion electrolyte comprises a poly(acrylic acid) polyelectrolyte.” Hence, there is now antecedent basis for the “poly(acrylic acid) polyelectrolyte” and the rejection should be withdrawn.

Claim Rejections – 35 USC §103

Claims 1 – 43 stand as rejected under 35 USC §103(a) as being unpatentable over Winterton et al. (USPN 6,451,871). The Examiner asserts, “Winterton et al. teach a coated substrate wherein a multilayer coating is applied to the substrate and comprises a self-assembled film having at least one bilayer comprising a polyanion layer and a polycation layer wherein the bilayers are produced by a known layer-by-layer process (Abstract; Col. 4-5). Winterton et al. teach that the substrate may be a biomedical device

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such as an ophthalmic lens as instantly claimed including materials and a shape as claimed and that the thickness of the layers can be controlled based on the concentration of the polyelectrolyte solutions (Abstract; Col. 12 – Col. 13, line 9). The polyanion layer may be formed from a poly(acrylic acid) polyelectrolyte and the polycation may be
5 formed from a poly(allylamine hydrochloride) as instantly claimed (Col. 6-7). Winterton et al. do not specifically teach the coating thickness instantly claimed or that the poly(acrylic acid) or polyanion/polycation is fluorinated as instantly claimed. However, Winterton et al. do teach that a wide variety of polymeric materials may be utilized wherein particular polyionic materials may be selected to provide specific functionality to
10 the coated substrate such as increased hydrophilicity, antimicrobial properties, radiation-absorbing properties, and control of cell growth (Col. 10, lines 22-51). Winterton et al. further teach that the core material of the ophthalmic lens is typically a fluorine-containing material in order to provide high oxygen permeability and non-stick properties of the lens. It is also well-established in the art that coatings comprising fluorinated
15 polymers or polymers with fluoroalkyl groups provide improved surface properties on optical substrates. Hence, one having ordinary skill in the art at the time of the invention would have been motivated to provide a surface layer comprising a fluorinated polyion or polyanion material comprising a fluoroalkyl group in the invention taught by Winterton et al. wherein one skilled in the art would have been motivated to determine the optimum
20 substrate material and bilayer thickness to utilize based on the desired end use of the coated substrate.”

Applicants respectfully disagree. Applicants’ claimed invention is directed toward a contamination-resistant coated substrate that has an uppermost layer comprising a fluoroalkyl group, each bilayer thickness ranges from about 0.1 nanometers to about 20
25 nanometers, and the coating absorbs less than 1% of transmitted light between wavelengths of about 300 nanometers and about 3000 nanometers (Claims 1 and 25). Winterton et al. disclose “a surface coating including at least one bilayer of polyelectrolytes. The bilayer includes a first polyionic material which is bonded to the core material and a second polyionic material, having charges opposite of the charges of

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the first polyionic material, which is bonded to the first polyionic material." (col. 3, lines 3-8) However, they fail to disclose an uppermost layer comprising a fluoroalkyl compound or that the coatings absorb less than 1% of transmitted light between wavelengths of about 300 nanometers and about 3000 nanometers (Claims 1 and 25).
5 Rather, they generically disclose that a "wide variety of polyionic materials may be useful in producing a wide variety of product properties." (Col. 10, lines 23-24) More specifically, they teach away from the present invention as they disclose, "Antimicrobial polyionic materials include polyquaternary ammonium compounds." (Col. 10, lines 31-33.) Therefore, it would not have been obvious based on the teaching of Winterton et al.
10 that one would obtain the contamination-resistant coating as instantly claimed. Rather, one would obtain a coating having a polyquaternary ammonium compound as the surface layer. Moreover, Winterton et al. fail to teach that each bilayer thickness ranges from about 0.1 nanometers to about 20 nanometers, and that the coating absorbs less than 1% of transmitted light between wavelengths of about 300 nanometers and about 3000
15 nanometers (Claims 1 and 25) nor would it be obvious to one of ordinary skill in the art to arrive at applicants' claimed invention based on the teaching of Winterton et al. Therefore, the rejection is without basis and should be withdrawn.

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CONCLUSION

5 In view of the above Amendments and Remarks, it is submitted that claims 1-23
and 25-43 are in condition for allowance. Reconsideration and withdrawal of the
rejections are requested and allowance of the claims at an early date is solicited.

Respectfully submitted,



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